

Metadata (Publishing) Lifecycle Workflow 19115-1 Metadata Crosswalk FGDC/GeoPlatform 19115-1 Profile



Lorna Schmid, FGDC OS

Jim Irvine, Ardent Management Consulting

Agenda – Discuss a Metadata Initiative

- Laying the Groundwork for Implementation of the Geospatial Data Act of 2018
 - Aligning requirements and processes will be key to consistent implementation of standards, delivery of metadata and ingestion by the GeoPlatform
- Initiative to Establish Foundational Documents
 - Mapping to ISO 19115-1
 - ❖ FGDC ISO 19115-1 Metadata Crosswalk
 - ❖ Establishing any necessary ISO 19115-1 profile elements
 - ❖ FGDC GeoPlatform ISO 19115-1 Profile
 - Ensuring consistent understanding of publishing requirements
 - Metadata Lifecycle, or Publishing, Workflow

*Q&A



The documents under review require the focus of the Metadata Working Group as their future state will provide the foundation for implementing the Geospatial Data Act and facilitate optimizing delivery of compliant metadata.

Transitioning to ISO Metadata Based on ISO Summit Recommendations

Policy and Planning

- Develop plan of action for transition to ISO 19115-1/-2/-3
- Streamline reporting requirements (e.g., crosswalks)
- Support FGDC endorsement of ISO standards and profiles

Tools and Applications

- ISO Metadata Editor Registry (e.g., creation, validation)
- Consistency in content (e.g., URI's, DOI's vocabularies)
- Coordinate publishing with Data.gov and GeoPlatform.gov

Education and Outreach

- Enhance best practices for documentation of services, etc.
- Develop online "workbook" with examples
- ISO Forum and other training (e.g., email listserv)





Geospatial Data Act of 2018: HR 302

- **♦ FAA Reauthorization Act of 2018, Subtitle F − Geospatial Data covered in Sections 751 − 759C**
- *Approved by the Senate Oct 5, 2018
- ***FGDC** will take on analysis and implementation requirements associated with the GDA
 - FGDC Tiger Team has been identified
- Laying the Groundwork for Implementation of the Geospatial
 Data Act Metadata Working Group Activities
 - Section 757. Standards.
 - Establish standards (including metadata) that are consistent with international standards to the maximum extent practical
 - Section 758. GeoPlatform.
 - Include metadata for all geospatial data collected, directly or indirectly, by covered agencies



Geospatial Data Act of 2018: HR 302 Metadata Working Group Activities

- ❖ FAA Reauthorization Act of 2018, Subtitle F Geospatial Data covered in Sections 751 – 759C
- ❖The initiative to achieve consensus on the three documents under review will provide critical foundation for the implementation of the GDA
 - Clear understanding of metadata publishing lifecycle requirements will aid in ensuring that all metadata records will be made available through the GeoPlatform
 - Consensus on mapping to ISO 19115-1 to ensure consistent implementation of established standards
 - Consensus on any profile requirements and validation that the GeoPlatform meets metadata needs and requirements



Aligning requirements and processes will be key to consistent implementation of standards, delivery of metadata and ingestion by the GeoPlatform

Timeline

Review by FGDC Preparation of Through September 19, Secretariat and Documents 2018 Support Teams Understanding Metadata Working September 20, 2018 Purpose, Goals and Group: Overview MWG Meeting & Discussion Needs September 25 -Prepare MWG Initial Documents for October 24, 2018 Comment Period MWG Distribution (MWG Mtg: Oct 17) **Collate Comments** October 25 - November MWG Meeting: & Document Initial **Present Findings** 14,2018 Findings Getting to Version 1 -Findings & Comment **Initial Report** December 21, Adjudication: Targeted Development 2018? Meetings: Process & Timeline



Metadata (Publishing) Lifecycle Workflow

Purpose: Understanding and Streamlining Metadata Processes

Action:

- ❖ Confirm existing DSM → Agency → Department workflow
- Review/Comment on metadata workflow future end state

Why It Was Developed:

- Understand Metadata publication lifecycle
- Consistent authoritative metadata throughout the metadata lifecycle
- ❖ Tools can be developed to consistently utilize metadata
- Consistent machine readability throughout the metadata lifecycle

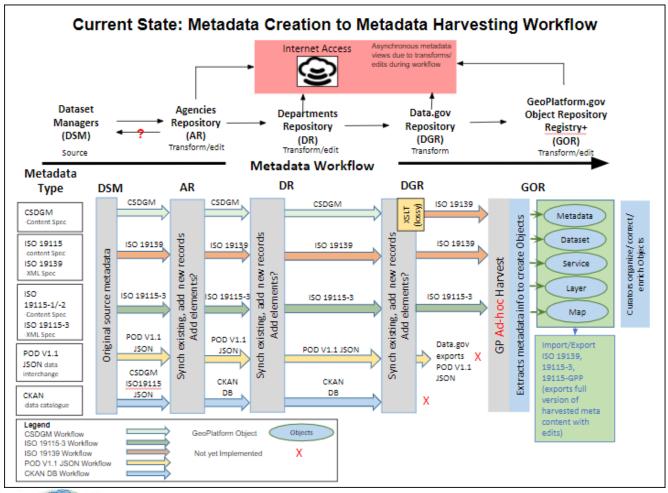
Overview:

Documentation of current metadata lifecycle (publication) workflows and optimized long term end state



Metadata (Publishing) Lifecycle Workflow

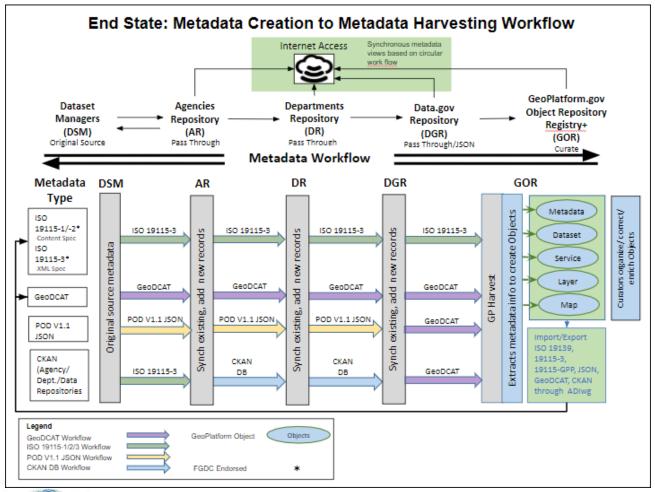
Current State - Draft under review





Metadata (Publishing) Lifecycle Workflow

End State Goal – draft under review





ISO 19115-1 Metadata Crosswalk

- ❖ Purpose: Provide a Consistent Path to ISO 19115-1 Metadata
- *Action: Review/Comment/Approve ISO Metadata Crosswalk (note 3 tabs)

Why It's Important:

- Consistent, interoperable metadata
- Baseline for developing Profiles and Extensions
- * Tools can be developed to perform mass translation of legacy metadata
- Consistent machine readability

***Overview:**

❖ Maps elements from CSDGM, 19115, and POD V1.1 to ISO 19115-1



ISO 19115-1 Metadata Crosswalk

ISO 19115/19139 to ISO 19115-1	Crosswalk		
Conditionality: mandatory conditional optional essential*		arrow (->) is compound element container	
ISO 19115-1 Element	ISO 19115-1/-3 XPath	CSDGM Element	CSDGM XPath
MD_Metadata			
Metadata Contact ->	!	Metadata Contact ->	
must include one or more of following:	MD_Metadata/contact/CI_Responsibility/ ->	must include contact person or organization	metadata/metainfo/metc/cntinfo ->
Individual Name	party/CI_Individual/name/CharacterString	Person	cntperp/contper/ (free text)
Organization Name	party/CI_Organization/name/CharacterString	Organization	cntorgp/cntorg/ (free text)
Position	party/CI_Individual.positionName/CharacterString	Position	cntorgp/cntpos/ (free text)
Organization logo	party/CI_Organization/logo/MD_BrowseGraphic/fileN ame/CharacterString		
Metadata Contact Role	/role/CI_RoleCode		
Metadata Contact Info ->	contactInfo/CI_contact/ ->		
Phone	phone/CI_Telephone/number/CharacterString	Voice Telephone	cntvoice/ (free text)
Address			
may include any of the following:	address/CI_Address ->		
Electronic Mail Address	electronicMailAddress/characterString	Electronic Mail Address	cntemail/ (free text)
		Metadata Contact Address -> must include all of the following:	metadata/metainfo/metc/cntinfo/cntaddr ->
		Address Type	addrtype/ (free text)
		Address	
Delivery Point	deliveryPoint/characterString	(C=if address is available)	address/ (free text)
City	city/characterString	City	city/ (free text)
Administrative Area	administrativeArea/characterString	State or Province	state/ (free text)
	postalCode/characterString		postal/ (free text)
	MD_Metadata/contact/CL_Responsibility/role/CL_Role		
+ = 12 19115 to 19115-1 \(\sigma\) 38 CSDGM to 19115-1 \(\sigma\) 3 POD to 19115-1 \(\sigma\)			



DRAFT FGDC/GeoPlatform ISO 19115-1 Profile

***Action:**

Establish a profile that aligns with the ISO standard to the fullest extent possible

***Why It's Important:**

- Persistent Uniform Resource Identifier (URI) throughout the metadata lifecycle
- Establish linkages and relationships between datasets, services, layers and maps
- Support the use of knowledge organization systems (KOS) and controlled vocabularies
- Facilitate machine readability throughout the metadata lifecycle



GeoPlatform Profile of ISO 19115-1

Overview of the draft specification September 20, 2018







The FGDC Metadata Working Group is an open, consensus based group ~

If you would like to participate ... we want your input!

Lorna Schmid, FGDC OS 703.648.6834

lorna@usgs.gov NGDATeam@fgdc.gov



